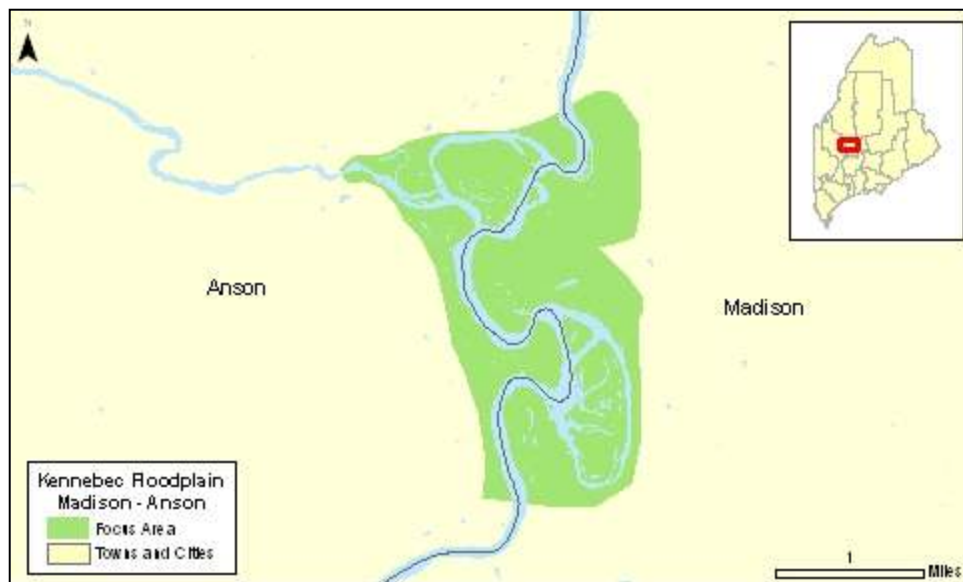


## Kennebec Floodplain—Madison and Anson Focus Area

Madison and Anson, Maine



### Description:

The Kennebec Floodplain – Madison and Anson Focus Area encompasses a section of the Kennebec River that includes Savage Island upstream at the confluence of the Carrabassett River and extends downstream to Weston Island. The focus area hosts a concentration of ecological features associated with the flooding regime of the Kennebec and Carrabassett Rivers. Rare natural communities, several rare plants and rare animals are all found in this relatively small area.

### Natural Communities and Rare Plants

Weston Island and the tiny island to its north, Linnel Island, support documented examples of two rare floodplain forest community types: **Silver Maple Floodplain Forest** and **Hardwood River Terrace Forest**. These two communities are both subject to seasonal flooding of the Kennebec River, and as a result have alluvial soils, though the soils may be dry for much of the growing season. The two communities are somewhat intermingled on the island, but they



*Silver Maple Floodplain Forest, a rare community type found in the Kennebec Floodplain – Madison and Anson Focus Area (photograph by the Maine Natural Areas Program).*

are separated primarily by slight differences in elevation. Silver maple (*Acer saccharum*) tends to dominate the tree canopy in lower elevation areas that predominate on the perimeter of the island and are more frequently flooded. In slightly higher elevations of the island other hardwood species become more abundant in the canopy, such as red oak (*Quercus rubra*) and yellow birch (*Betula allegheniensis*). Though both floodplain communities are considered rare in Maine, the Hardwood River Terrace Forest is much less common, having been documented at less than ten sites in the state. The occurrence of both community types together, in combination with several rare plant species, therefore represents a significant concentration of unique features.

Annual enrichment of the alluvial soils helps to support a dense layer of herbaceous species such as ostrich fern (*Mattateucia struthiopteris*), sensitive fern (*Onoclea sensibilis*), and a number of spring ephemerals. An extensive population of **wild garlic** (*Allium candense*), a rare plant, is found on the northern third of Weston Island and on the eastern half of Linnel Island.

Populations of the rare plant species **wild leek** (*Allium tricoccum*) and **bottlebrush grass** (*Elymus hystrix*) are also found on Linnel Island. There is some evidence of historic use of these islands as pasture land, but the condition of the floodplain forest communities is generally good. However, small populations of non-native species such as goutweed (*Aegopodium podagraria*), dame's rocket (*Hesperis matronalis*), and Morrow's honeysuckle (*Lonicera morrowii*) are present.

Savage Island, at the confluence of the Carrabassett River, also has forest that is subject to seasonal flooding. Two rare plant species have been documented from the northeast section of Savage Island, **wild garlic** and **long-leaved bluet** (*Houstonia longifolia*). The long-leaved bluet population on Savage Island is large, but there are scattered occurrences of small satellite populations of this species at other riparian locations along the Kennebec River within this focus area. The Savage Island long-leaved bluet population is located in an opening close to a cobble shore where there is some indication of use by recreational boaters. Non-native plant species are more abundant on Savage Island than on Weston and Linnel Islands. The spread of non-native plant species could worsen over time and threaten the long-term viability of rare plant species here.

Most of the land adjacent to the Kennebec River in this focus area, aside from a narrow forested riparian zone, is either currently being farmed or has been farmed in the recent past. The best examples of flood plain communities are therefore those found on the islands.

## Wildlife

The Kennebec River in this focus area supports at least two rare animal species, the **brook floater** (*Alasmidonta varicosa*), a freshwater mussel, and the **wood turtle** (*Glyptemys*



*Brook floater (Alasmidonta varicosa), a threatened mussel found in the section of the Kennebec River within the Kennebec Floodplain Focus Area (photograph by Ethan Nedeau).*

*insculpta*). Brook floater mussels have experienced significant declines throughout their range, with many populations being extirpated. Even where it is found, the population often consists of just a small number of individuals. Maine has more populations of this threatened species than the remainder of the Northeast combined and is, therefore, important for this species' conservation. Wood turtles, a primarily northeastern species listed as a species of special concern in Maine, are also declining throughout their range. Maine, however, likely hosts some of the largest and most viable remaining populations in the U.S.

Wood turtles overwinter in streams and rivers and may forage in adjacent floodplain forests of this focus area. Wood turtles use riverine and floodplain habitats for hibernation, breeding, and nesting, though they may be found in upland habitats at other times. Maintaining an unfragmented riparian corridor and unrestricted access between riparian and upland habitats will continue to make the Kennebec Floodplain - Madison and Anson Focus Area excellent habitat for the rare wood turtle.

Old oxbows of the Kennebec River and associated wetlands provide important **inland waterfowl and wading bird habitat** that has been mapped by the Department of Inland Fisheries and Wildlife.

***Rare Features Table for Kennebec Floodplain Focus Area:***

Common Name	Scientific Name	Status	S-Rank	G-Rank
<b>Natural Communities</b>				
Upper Floodplain Hardwood Forest	Hardwood River Terrace Forest	N/A	S2	GNR
Silver Maple Floodplain Forest	Silver Maple Floodplain Forest	N/A	S3	GNR
<b>Rare Plants</b>				
Wild garlic	<i>Allium canadense</i>	SC	S2	G5
Wild leek	<i>Allium tricoccum</i>	SC	S3	G5
Bottlebrush grass	<i>Elymus hystrix</i>	T	S2S3	G5
Long-leaved bluet	<i>Houstonia longifolia</i> var. <i>longifolia</i>	SC	S2S3	G4G5TNR
<b>Rare Animals</b>				
Brook floater	<i>Alasmodonta varicose</i>	T	S3	G3
Wood turtle	<i>Glyptemys insculpta</i>	SC	S4	G4

***Other Features Mapped by MDIFW:***

Inland waterfowl and wading bird habitat

### **Protection Status:**

No land within this focus area is in conservation protection at this time.

### **Conservation Considerations:**

- The integrity of wetlands and the processes and life forms they support including rare plants and animals are dependent on the maintenance of the current hydrology and water quality of the site. Intensive timber harvesting, vegetation clearing, soil disturbance, new roads, and development on buffering uplands can result in greater runoff, sedimentation, and other non-point sources of pollution that can degrade the high quality natural systems that occur here.
- Forested buffers along the Kennebec River serve to decrease erosion and nutrient runoff and help prevent the spread of exotic invasive plants. Unchecked erosion can cause formerly stable banks to slump and completely wash away under heavy runoff conditions. Maintaining or restoring a healthy buffer of native trees is vital to help protect the integrity of the riparian ecosystems.
- The integrity of the riparian ecosystems and the rare plant and animal species that they support depend on good water quality. Intensive timber harvesting, vegetation clearing, soil disturbance, new roads, and development on buffering uplands can result in greater runoff, sedimentation, and other non-point sources of pollution that can degrade the high water quality currently found here.
- Floodplain forest communities, because of the periodic natural hydrological disturbances to which they are subjected, are particularly susceptible to colonization by invasive plant species. Local groups with an interest in the protection of this focus area should be made aware of the potential threat of invasive plants in these communities and keep an eye out for them before they become well established.
- Towns should strive to protect inland waterfowl and wading bird habitat (IWWH) areas identified by MDIFW in low density, rural settings by identifying IWWH areas in comprehensive plans and zoning accordingly.

Visit our web site for more information on rare, threatened and endangered species!  
<http://www.mainenaturalareas.org>

### STATE RARITY RANKS

- S1** Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- S2** Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- S3** Rare in Maine (on the order of 20-100 occurrences).
- S4** Apparently secure in Maine.
- S5** Demonstrably secure in Maine.

**Note:** **State Ranks** are determined by the Maine Natural Areas Program.

### GLOBAL RARITY RANKS

- G1** Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- G2** Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- G3** Globally rare (on the order of 20-100 occurrences).
- G4** Apparently secure globally.
- G5** Demonstrably secure globally.

**Note:** **Global Ranks** are determined by The Nature Conservancy.

### STATE LEGAL STATUS FOR PLANTS

**Note:** State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's endangered and threatened plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

- E** ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future, or federally listed as Endangered.
- T** THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.
- SC** SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.